

***Amendments to the Claims***

The listing of claims will replace all prior versions, and listings of claims in the application.

1-20 (*cancelled*)

21. (*currently amended*) A system for producing a pulse code modulation (PCM) signal, comprising:

a first filter configured to produce an input signal  $I(n)$  from a secondary audio program (SAP) signal;

a frequency modulator (FM) including,

a second filter that generates a quadrature-phase signal  $Q(n)$  from the input signal  $I(n)$ ,

a FM device configured to generate a frequency modulated signal  $FM(n)$  from the input signal  $I(n)$  and the quadrature-phase signal  $Q(n)$ , and

a third filter configured to produce the pulse code modulation (PCM) signal from the  $FM(n)$  signal.

22. (*original*) The system of claim 21, wherein the  $FM(n)$  signal equals  $[I(n)Q'(n) - I'(n)Q(n)] / [I^2(n) + Q^2(n)]$ .

23. (*original*) The system of claim 21, wherein the SAP signal is a constant magnitude signal, a sine wave, or a cosine wave.

24. (*original*) The system of claim 21, wherein the first filter is a band pass filter.

25. (*original*) The system of claim 21, wherein the second filter is a Hilbert filter.

26-31 (*cancelled*)